

What is claimed is:

1. A pharmaceutical composition comprising a probiotic, a prebiotic, and an ammoniaphilic urea degrading microorganism with high alkaline pH stability and high urease activity, said  
5 composition being microencapsulated or enteric coated .

2. The pharmaceutical composition of claim 1 further comprising a water absorbent.

3. The pharmaceutical composition of claim 2 where the water absorbent is selected from locust bean gum, psyllium  
10 fiber, guar gum and zeolite.

4. The pharmaceutical composition of claim 1 further comprising a sorbent for inorganic phosphate and an adsorbent for specific uremic solutes other than urea.

5. The pharmaceutical composition of claim 4 wherein  
15 the inorganic phosphate adsorbent is selected from aluminum hydroxide gel, calcium hydroxide gel and magnesium hydroxide gel and the specific uremic solute adsorbent is activated charcoal.

6. The pharmaceutical composition of claim 1 where the  
20 probiotic is selected from a *Bifidium* or *Lactobacillus* species.

7. The pharmaceutical composition of claim 1 wherein the prebiotic is selected from fructan oligosaccharide and araban oligosaccharide.

25 8. The pharmaceutical composition of claim 1 wherein the ammoniaphilic bacteria is selected from *Bacillus pasteurii*, *Sporosarcina ureae*, *Bacillus* species and *Lactobacillus* species KB-I.

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9. The pharmaceutical composition of claim 1 wherein the probiotic and the ammoniaphilic urea degrading microorganism with high alkaline pH stability and high urease activity comprise the same species of bacteria.

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10. A pharmaceutical composition comprising a probiotic, a prebiotic, an ammoniaphilic urea degrading microorganism with high alkaline pH stability and high urease activity, a water absorbent, a sorbent for inorganic phosphate and an adsorbent for specific uremic solutes other than urea, said composition being microencapsulated or enteric coated.

11. A method of inhibiting build up of toxins and metabolic wastes and overgrowth of undesirable bacteria in a subject comprising administering to the subject the pharmaceutical composition of claim 1.

12. The method of claim 11 further comprising administering to the subject a water absorbent, a sorbent for inorganic phosphate and an adsorbent for specific uremic solutes other than urea.

13. The method of claim 11 wherein the pharmaceutical composition further comprises a water absorbent, a sorbent for inorganic phosphate and an adsorbent for specific uremic solutes other than urea.

14. The method of claim 11 wherein the pharmaceutical composition is administered to the subject to alleviate the symptoms of uremia.

15. The method of claim 14 wherein the symptoms of uremia are caused by kidney disease or an inborn error of urea metabolism.

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16. The method of claim 11 wherein the pharmaceutical composition is administered to treat renal insufficiency, liver insufficiency, inborn error of urea metabolism or gastrointestinal disorders and diseases.